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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/615,746	07/09/2003	James Lynn Haas	62146A	9889

109 7590 10/13/2005

THE DOW CHEMICAL COMPANY  
INTELLECTUAL PROPERTY SECTION  
P. O. BOX 1967  
MIDLAND, MI 48641-1967

EXAMINER

YAO, SAMCHUAN CUA

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 10/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/615,746

Applicant(s)

HAAS, JAMES LYNN

Examiner

Sam Chuan C. Yao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 August 2005.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 and 20 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-16 and 20 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-16 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Longrigan et al (US 5,837,743) in view of Hoffmann et al (US 4,804,425).

The discussion of the Longrigan et al patent is set forth in a prior office action dated 04-29-05 numbered paragraph 8. While Longrigan et al discloses separately supplying a low binder fiber mat and a support mat and forming them into a composite web before a foamable mixture is introduced, Longrigan et al does not teach using a roll of composite comprising a low binder fiber mat and a support web. However, absent any showing of unexpected benefit, it would have been obvious in the art to modify the process of Longrigan et al such that a roll of composite supply comprising a low binder fiber mat and a support mat is used, because Hoffman et al teaches supplying a roll of a composite comprising a mesh web and an aluminum facing web for a bottom covering layers and separately supplying a mesh web and an aluminum facing web (i.e. the same materials as component layers in the composite) for a top covering layer in forming a laminated foamed article (col. 5 lines 16-59; figure 1). The teachings of Hoffman et al would have suggested to one in the art that, one could effectively

and interchangeably supply a low binder fiber mat and a support mat as a composite in a single feeding roll or separately feed them in different feeding rolls to a foam injection station and a laminating station. An incentive for one in the art to supply them as a composite in a single feeding roll would have simply been to obtain a self-evident advantage of simplifying the process (i.e. obviating the need to use multiple feed rollers and the need to synchronize the feeding speed of a low binder fiber mat supply and a support mat supply).

With respect to claim 20, it would have been imperative to dispose a composite to a supply roll such that a support mat is located below a low binder fiber mat. Otherwise, a support mat would be facing an injected foamable mixture instead of a low binder fiber mat. For this reason, the limitation in this claim is expected to naturally flow from the modified process of Longrigan et al. The various idler rollers are clearly not critical in the process Longrigan et al. See for instance, figure 1 of the Hoffmann et al patent, where no idler roller is used as a composite web is being delivered to a foaming operation.

3. Claims 1-16 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gluck et al (US 4,572,865) in view of Hoffmann et al (US 4,804,425).

Gluck et al, drawn to making a fiber reinforced foam composite, substantially discloses the process recited in these claims. See column 2 line 62 to column 3 line 2, column 3 line 18 to column 4 line 32, column 5 line 67 to column 6 line 43, column 9 lines 8-47, figures 2 and 5-6. Note: Gluck et al teaches using an

expandable reinforcing fiber mat suggested in U.S. Patent 4,028,158 issued to Hichen et al. See column 9 lines 14-19.

Gluck et al differs from the recited claims in that, Gluck does not teach using a roll of composite comprising a low binder fiber mat and a support web. However, it would have been obvious in the art to modify the process of Gluck et al such that a roll of composite supply comprising a low binder fiber mat and a support mat is used, because Hoffman et al teaches supplying a roll of a composite comprising a mesh web and an aluminum facing web for a bottom covering layers and separately supplying a mesh web and an aluminum facing web (i.e. the same materials as component layers in the composite) for a top covering layer in forming a laminated foamed article (col. 5 lines 16-59; figure 1). The teachings of Hoffman et al would have suggested to one in the art that, one could effectively and interchangeably supply a low binder fiber mat and a support mat as a composite in a single feeding roll or separately feed them in different feeding rolls to a foam injection station and a laminating station. An incentive for one in the art to supply them as a composite in a single feeding roll would have simply been to obtain a self-evident advantage of simplifying the process (i.e. obviating the need to use multiple feed rollers and the need to synchronize the feeding speed of a low binder fiber mat supply and a support mat supply).

With respect to claim 20, it would have been imperative to dispose a composite to a supply roll such that a support mat is located below a low binder fiber mat. Otherwise, a support mat would be facing an injected foamable mixture instead

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of a low binder fiber mat. For this reason, the limitation in this claim is expected to naturally flow from the modified process of Gluck et al. The various idler rollers are clearly not critical in the process Gluck et al. See for instance, figure 1 of the Hoffmann et al patent, where no idler roller is used as a composite web is being delivered to a foaming operation.

### ***Response to Arguments***

4. Applicant's arguments filed on 08-22-05 have been fully considered but they are not persuasive.

On pages 7-8, Counsel argues that *"the proposed modification addresses a difference between the presently claimed invention and the primary references but falls short of addressing the claimed invention as a whole."* Accordingly, *"Applicant has discovered a solution to specific problems with feeding low binder fiber mat into a foaming process. ... Applicant has identified the source of these problems"* [necking and pulling apart of a low binder mat] and presented a solution to these problems by feeding a composite (low binder fiber mat and support layer) from a supply roll. It is respectfully submitted that, absent any showing of unexpected benefit, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

On pages 8-9, Counsel argues that, *"the motivation to combine and modify references to achieve the presently claimed invention lacks the specificity and objectivity necessary to support even a prima facie case of obviousness."* (the phrase "prima facie" originally

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italicized). Accordingly, “[w]hile the Office provides specific advantages that may arise from the cited combination (fewer feed rollers and no need to synchronize feeds)- the office fails to establish that such advantages are indeed a simplification of the process.” (“simplification” is originally italicized and emphasized). It is respectfully submitted that, it is self-evident that a process is simplified when the number of feed rollers needed is reduced and the need to synchronize is obviated. In any event, even for the sake of argument the process is not simplified by reducing the number of feed rollers and obviating the need to synchronize feed roller, as correctly characterized by Counsel “such advantages” are obtained by feeding a composite comprising a low binder mat and a support layer in a roll instead of feeding them in two separate feed rolls. As for Counsel’s alleged “[v]ersatility limitations” of providing a composite to a supply roll, it is reasonably expected that one in the art would have considered and balanced the tradeoff between the benefit of simplifying the process and the alleged “[v]ersatility limitations” in using a composite web in a single roll. Equally important, in the sense of 35 USC 103, one only needs to show a reasonable expectation of success to establish a prima facie obviousness. The teachings of Hoffmann et al would have reasonably suggested to one in the art that the low binder mat and the support mat in the process of Longrigan et al or Gluck et al can effectively be delivered to a foaming operation as a composite from a single feed roll or as separate layers from two feed rolls. Absent any showing of unexpected benefit, a preference on whether to deliver the two mats as a composite from a single feed roll or as two separate mats from two feed rolls is taken to be well within the purview of choice in the art. As for Counsel’s argument on page 9 last

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paragraph regarding the number of years between an issuance date of Hoffmann et al and Londrigan et al or Gluck et al, is Counsel suggesting that, Longrigan et al and Gluck et al are aware of the Hoffman patent? In any event, as noted above, one only needs to show a reasonable expectation of success to establish a prima facie obviousness.

As for Counsel's argument regarding claim 20, Counsel's attention is directed to figure 1 of the Hoffmann et al patent. As noted above, it would have been imperative to dispose a composite to a supply roll such that a support mat is located below a low binder fiber mat. Otherwise, a support mat would be facing an injected foamable mixture instead of a low binder fiber mat. Therefore, the limitation in this claim is expected to naturally flow from the modified process of either Londrigan et al or Gluck et al.

### ***Conclusion***

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

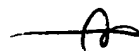
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Chuan C. Yao whose telephone number is (571) 272-1224. The examiner can normally be reached on Monday-Friday with second Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Dunn can be reached on (571) 272-1171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Sam Chuan C. Yao  
Primary Examiner  
Art Unit 1733

Scy  
10-11-05